

METHOD FOR DETERMINING PHYSIOLOGICAL EFFECTS OF HEMOGLOBIN

ABSTRACT OF THE DISCLOSURE

- NO preferentially binds to the minor population of the hemoglobin's vacant hemes in a cooperative manner, nitrosylates hemoglobin thiols, or reacts with liberated
- 5 superoxide in solution. The distribution of minor forms of hemoglobin can be tested and the results can be used to predict whether a composition of hemoglobin will scavenge, load, eliminate, or donate NO. Hemoglobin thus serves to regulate the chemistry of NO. SNO-hemoglobin transfers NO equivalents to the red blood cell anion transport protein AE1, which serves to export NO from red blood cells.
- 10 Regulation of AE1 function is the basis for methods of therapy to affect levels of NO or its biological equivalent.